REMARKS

Claims 1-4 are pending in this application. By this Response, claims 1 and 3 are amended. Reconsideration and allowance based on the above amendments and following remarks are respectfully requested.

Applicants appreciate the indication of claim 4 as containing allowable subject matter.

The Office Action rejects claim 1 under 35 U.S.C. §103(a) as being unpatentable over Ikeuchi (EP 0 572 192) in view of Murata (JP 6-168677); claim 2 under 35 U.S.C. §103 as being unpatentable over Ikeuchi, Murata and Osinga, et al. (U.S. Patent No. 4,484,166) and claim 3 under 35 U.S.C. §103(a) as being unpatentable over Christiana, et al. (U.S. patent No. 3,601,731) in view of Hirota, et al. (JP 1-151134). These rejections are respectfully traversed.

Since features of independent claim 1 have been included in claim 3 by this Response, and vice versa, applicants address the specific features of the independent claims individually that are novel in view of the cited references. Applicants also provide arguments against the references asserted to teach these particular features.

A. Independent Claims 1 and 3 each recite the feature of "said second guide groove and third guide groove have a width in a range of 1.0 to 1.5 times a diameter of said conductor". The Office Action alleges that Murata teaches this feature. Applicants respectfully disagree.

The Office Action refers to the teachings in Murata of a coil groove and conductor wire having a relationship defined by the equation $W_1 < W_3 < W_1 + W_0$, where W_0 is the diameter of a single wire, W_1 is the length of the number of coil wires that form a single column of wires when positioned in a coil groove, and W_3 is the width of the coil groove. See columns 10 and 11 in Murata and Figs. 1B and 1C. The Office Action presents a scenario that if the multi-wire combination column (W_1) comprises at least two wires and the width of the multi-wire combination is 1, then W_3 lies in the range 1 is $< W_3$ is < 1.5. Applicants respectfully submit that although the number 1 and 1.5 appear in the equation in the Office Action scenario, these numbers are not representative of applicant's claimed range.

Applicants claim a wired groove with a width of 1 to 1.5 times <u>a diameter of said conductor</u>. It is the single wire conductor that the width is measured from. This is disclosed in the specification on page 6 with reference to Figs. 1 and 2. In contrast, Murata's width is measured from the multiple wires. In fact, using the scenario provided in the Office Action, if the width of the multi-wire is 1 and is comprised of two wires, then the width of a single wire W_0 is equal to .5. Thus, a range of 1 to 1.5 for a wire having a diameter of .5 would actually equate to a range of 2 to 3 times a diameter of the conductor wire if put in terms of applicant's claimed invention. Thus, Murata does not teach this particular feature, as recited in claims 1 and 3.

Further, the Office Action alleges that it would be "obvious to one of person skilled in the art to provide said at least second groove and said at least one third groove with a width of at least one times the diameter of said multi-wire conductor to be positioned in said grooves. Thus, Christiana-Hirota teaches a width in a range greater than or equal to one times the diameter of said conductor". See Office action page 5, last paragraph to page 6, first paragraph.

Applicants do not disagree with this Office Action allegation. The width of the groove would have to be greater than or equal to one times the diameter of a conductor, otherwise the conductor wire would not fit in the groove. This is obvious. However, the claims specify a range of between 1 and 1.5 times the diameter of the conductor wire. This range is <u>not</u> taught by Christiana or Hirota and one of ordinary skill would not be motivated to include such teachings with the teachings of Christiana and Hirota as nothing within each of these references suggests utilizing a restrictive range.

B.   Independent claim 1 recites the feature "a multi-wire conductor wound around said coil bottom to form a coil, the conductor having a substantially circular cross-section". Applicants respectfully submit that the combination of Ikeuchi and Murata fail to teach this feature.

The multi-wire conductor of Murata has a substantial rectangular cross section which is contrary to applicant's claimed cross-section for a multi-wire configuration. Paragraph 8 lines 7-11 of Murata states "a deflection coil is formed

7

of a plurality of wires, for example, four solid wires, 1A, 1B, 1C and 1D each of which is covered with an insulating material. The deflection material is in the shape of **flat plate**. That is, the deflection coil is a flat multi-conductor cable formed either by enclosing force all the wires in a single piece of insulating material or by bonding the four solid wires together by an adhesive" (emphasis added). Thus, the combination of the circular wires provided in Murata when adhered together to form a multi-wire configuration provides a substantial rectangular cross section area, which is contrary to the teachings of the present invention and the features recited in claim 1.

C.   Finally, claims 1 and 3 each recite "a conductor …being routed through said first guide grooves, said at least one second guide groove and said at least one third guide groove, such that respective terms of the coil are <u>sequentially</u> layered in said first guide groove in a winding sequence order". (emphasis added).

Neither of the applied references teach or suggest a first, second and third guide groove in which respective terms of the coil are <u>sequentially</u> layered in the first guide groove. This sequential layering allows for laying each turn of the coil neatly in the order of the winding operation.

Each of the cited references, Murata, Ikeuchi, Osinga, Christiana and Hirota do not suggest or teach the specific sequential layering as claimed. Instead, it appears that each of these references allow each turn of the coil to lie in a randomly available space when being positioned within a groove.

8

Thus, as demonstrated above, each of the claimed features of the present invention are not taught by the applied references alone or in combination. Accordingly, reconsideration and withdrawal of the rejections are respectfully requested.

Conclusion

For at least these reasons, it is respectfully submitted that claims 1-4 are distinguishable over the cited references. Favorable consideration and prompt allowance are earnestly solicited.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Chad J. Billings (Reg. No. 48,917) at the telephone number of the undersigned below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

Respectfully submitted,
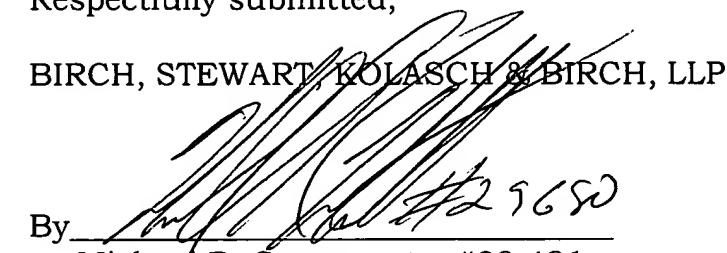
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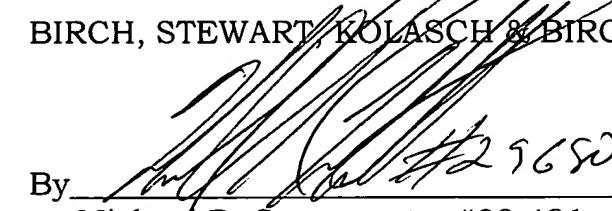
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Attachment(s)